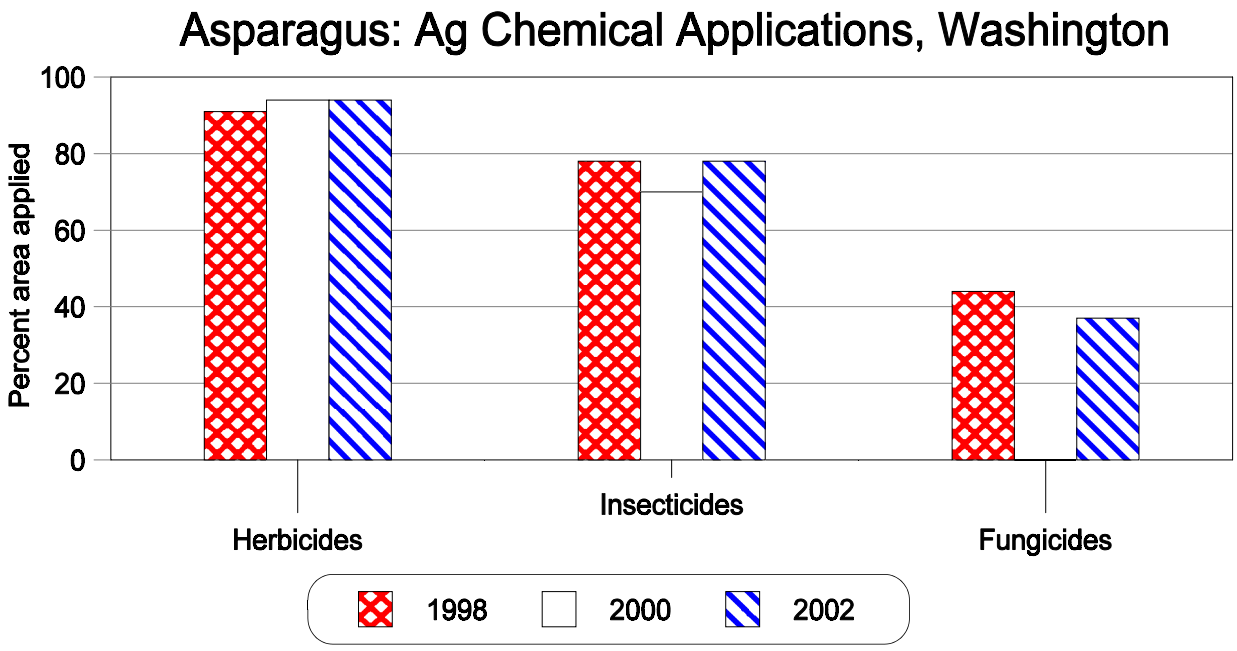
Agricultural Chemicals

Data for the "Agricultural Chemical Usage Summaries" have been collected by the National Agricultural Statistics Service (NASS) since 1995. Information in these reports includes on-farm chemical use data for selected fruits, nuts, vegetables, and crops. In 2002, the Vegetable Chemical Use Survey and the Field Crops Chemical Use Survey (FCCUS) were conducted to gather the information contained in the summaries. The FCCUS focused on winter wheat, whereas the Vegetable Chemical Use Survey in Washington gathered data for asparagus, processing carrots, processing sweet corn, processing green peas, and dry onions. Vegetable chemical data summaries are available for even numbered years and the most recent winter wheat chemical data are available for 2002.

Both surveys had similar sampling schemes. The population of the Vegetable Chemical Use Survey for Washington consisted of operations who historically had grown the targeted fruits. Winter wheat growers were selected for the FCCUS. These producers were drawn from a list of farming operations managed by NASS. They were arranged by type of crop grown and size of farm. Special consideration during the selection process was given to rare commodities and those crops with very few growers. Each group or "stratum", was given a separate priority of selection based upon the specific characteristics of the group. Each farm could be associated with only one stratum. Every farm in the population had a chance of being selected to be in the sample. The final sample size was determined by the number of reports needed to provide accurate chemical use estimates at the state level. After the farms were chosen, operators or managers were personally interviewed to obtain production practices on a randomly selected part of the operation. Starting with the first application after the 2001 crop was harvested, applications were gathered for chemicals that were applied to all targeted crops. Fertilizer data was collected for winter wheat only. Chemicals that were applied were recorded by product or trade name. A thorough review compared reported data with manufacturer label recommendations. A comparison was also made with data from other farm operators using the same product. Following this review, product information was converted to the active ingredient. This formed the basis of the estimates presented in the summaries.

The chemical use surveys were funded through the USDA Pesticide Data Program. This multi-agency program provides reliable pesticide use statistics and enhances the quality of information on pesticide residues in food. The data series addresses the increased public interest in agricultural chemical use and provides the means for government agencies to respond effectively to food safety and water quality issues. The implementation of the Food Quality Protection Act (FQPA), in 1996, and other legislation increased the need for reliable chemical use data. The FQPA mandates an accelerated review of all pesticide products before they can be re-registered for use on specific crops. A complete copy of the summaries can be found on the Washington Agricultural Statistics Service homepage at www.nass.usda.gov/wa/.



Agricultural Chemicals: Pesticide Usage, Washington, 2000 & 2002

Crop	Planted Acreage		Area Receiving 1/							
			Herbicides		Insecticides		Fungicides		Other Chemicals 2/	
	2000	2002	2000	2002	2000	2002	2000	2002	2000	2002
	Acres		Percent							
VEGETABLES:										
Asparagus	23,000	18,000	94	94	70	78	**	37	**	**
Carrots, Processing	5,300	4,700	99	97	42	**	71	71	73	**
Lima Beans, Processing 2/	5,200	-	93	-	**	-	**	-	**	-
Green Peas, Processing	51,300	37,600	98	88	59	70	9	**	**	**
Dry Onions	15,800	17,100	95	93	42	92	66	94	44	72
Sweet Corn, Processing	101,800	97,700	78	89	44	80	**	**	**	**
BERRIES:										
Strawberries 2/	1,500	-	83	-	54	-	92	-	4	-
FIELD CROPS:										
Winter Wheat	1,850	1,750	95	87	-	-	-	3	**	**

1/ Refers to acres receiving one or more applications of a specific pesticide class.
2/ Lima beans and strawberries were not included in the 2002 Vegetable Chemical Use Survey.
** *Insufficient reports to publish data for other chemicals.*

Asparagus: Fertilizer Applications, Total Acreage & Percentage Receiving Applications, Major States & Total, 2000 & 2002

State	Planted Acreage		Area Receiving 1/					
			Nitrogen		Phosphate		Potash	
	2000	2002	2000	2002	2000	2002	2000	2002
	Acres		Percent					
California	40,900	36,500	-	60	-	26	-	12
Michigan	17,000	16,000	-	98	-	35	-	83
New Jersey 2/	1,000	-	-	-	-	-	-	-
Washington	23,000	18,000	-	71	-	33	-	31
TOTAL	**81,900**	**70,500**	**-**	**72**	**-**	**30**	**-**	**33**

1/ Refers to acres receiving one or more applications of a specific fertilizer ingredient. 2/ New Jersey was not included in the 2002 survey.
- Fertilizer applications were not collected in the 2000 Vegetable Chemical Use Survey.

Asparagus: Agricultural Chemical Applications, Washington, 2000 & 2002 1/

Active Ingredient 2/	Area Applied		Applications		Rate Per Application		Rate Per Crop Year		Total Applied	
	2000	2002	2000	2002	2000	2002	2000	2002	2000	2002
	Percent		Number		Pounds Per Acre				1,000 Pounds	
Herbicides										
2, 4-D	6	-	1.0	-	0.69	-	0.74	-	1.0	-
Dicamba	5	-	1.2	-	0.18	-	0.22	-	0.2	-
Diuron	59	63	1.1	1.2	1.18	1.31	1.40	1.66	19.0	18.9
Glyphosate	28	17	1.0	1.0	0.82	0.65	0.87	0.68	5.6	2.0
Linuron	-	8	-	1.3	-	0.77	-	1.07	-	1.6
Metribuzin	53	49	1.2	1.5	0.87	0.77	1.06	1.15	13.0	10.1
Parquat	17	22	1.0	1.2	0.60	0.51	0.60	0.61	2.3	2.4
Trifluralin	47	56	1.0	1.0	1.15	1.07	1.18	1.10	12.6	11.1
Insecticides										
Carbaryl	-	32	-	1.0	-	1.32	-	1.43	-	8.3
Dimethoate	6	-	2.2	-	0.52	-	1.15	-	1.6	-
Disulfoton	50	65	1.5	1.3	0.94	1.01	1.44	1.34	16.7	15.5
Malathion	15	-	1.0	-	1.14	-	1.21	-	4.1	-
Fungicides										
Mancozeb	-	37	-	1.4	-	1.50	-	2.19	-	14.6

1/ Planted acres in 2000 for Washington were 23,000, and planted acres in 2002 were 18,000.
2/ Insufficient reports to publish data for the following agricultural chemicals: 2000: Herbicides: Alachlor, Clopyralid, Linuron, MCPA, Norflurazon, Quizalofop-ethyl, Simazine, Terbacil. Insecticides: Carbaryl, Chlorpyrifos, Diazinon, Endosulfan. Fungicides: Mancozeb. 2002: Herbicides: 2,4-D, 2,4-D, Dimeth. salt, Bromacil, Clopyralid, Dicamba, Dicamba, Sodium Salt, Halosulfuron, Norflurazon, Picloram, Simazine, Sulfosate. Insecticides: Chlorpyrifos, Diazinon, Dimethoate, Malathion, Permethrin, Phosphamidon. Other Chemicals: Monocarbamide dihyd.
3/ Refers to acres receiving one or more applications of a specific agricultural chemical. Note: Data may not multiply across due to rounding.